

**WHAT IS CLAIMED IS:**

5           1. A method of forwarding an SMS (Short Message Service) message in a mobile communication system having at least one MSC (Mobile Switching Center) for providing communication services to a plurality of mobile terminals, and at least one MC (Message Center) interconnecting with the MSC for providing an SMS, comprising the steps of:

10           requesting transmission of an SMS message from a calling mobile terminal to the MC;

15           determining whether a forwarding function is set for a called mobile terminal in the MC;

20           transmitting the SMS message to the called mobile terminal if it is determined that the forwarding function is not set; and

25           transmitting the SMS message to a destination mobile terminal if it is determined that the forwarding function is set.

20           2. The method of claim 1, wherein the requesting step comprises the steps of:

25           requesting subscriber information of the called mobile terminal from an HLR (Home Location Register);

30           searching for the subscriber information of the called mobile terminal in the HLR; and

35           transmitting from the HLR to the MC the subscriber information of the destination terminal if it is determined that the forwarding function is set for the called mobile terminal.

40           3. A method of forwarding an SMS (Short Message Service) message in a mobile communication system having at least one MSC (Mobile Switching Center) for providing communication services to a plurality of mobile terminals, and at least one MC (Message Center) interconnecting with the MSC for providing an SMS, comprising the steps of:

requesting transmission of an SMS message from a calling mobile terminal to a called MC via a calling MSC;

5            checking the subscriber information of a called mobile terminal in the called MC and requesting transmission of the SMS message from the MC;

              searching for the subscriber information of the called mobile terminal and determining whether a forwarding function is set for the called mobile terminal in the called MC;

10            requesting transmission of the SMS message from the called MC to a destination MC if it is determined that the forwarding function is set; and

              checking the subscriber information of a destination mobile terminal in the destination MC and transmitting the SMS message from the destination MC to the destination mobile terminal.

15            4.        A method of forwarding an SMS (Short Message Service) message in a mobile communication system having at least one MSC (Mobile Switching Center) for providing communication services to a plurality of mobile terminals, at least one MC (Message Center) interconnecting with the MSC for providing an SMS, a PSTN (Public Switched Telephone Network) exchange interconnecting with the MSC, and a voice conversion server interconnecting with the PSTN exchange, comprising the steps of:

20            requesting transmission of an SMS message from a calling mobile terminal to the MC via the MSC;

              searching for the subscriber information of a called mobile terminal and determining whether a forwarding function is set for the called mobile terminal in the MC;

25            requesting transmission of the SMS message from the MC to the voice conversion server via the PSTN exchange if it is determined that the forwarding function is set and a destination terminal is a PSTN phone;

              converting the SMS message to a voice message in the voice conversion server and requesting establishment of a path to the destination terminal from the voice conversion server to the PSTN exchange; and

transmitting the converted voice message from the voice conversion server to the destination terminal after the PSTN establishes the path.

Source: Source: North & W. States, USA, & Canada